[redacted] PAPER

ON

SENSOR EVOLUTIONARY DEVELOPMENT (SED)

PURPOSE: For use during discussions with Mr. Sheppelo, IPM.

BACKGROUND:

— In 1973/74 a major warning system review was conducted called

— Mission Analysis for Missile & [redacted] Surveillance ([redacted])

— Goals were established for

— Data accuracy

— Data timeliness

— ICBM/SLBM discrimination goals

— Existing DSP Sensor focal plane design did not approach these goals

— Air Staff initiated the Sensor Evolutionary Development (SED) program to reach/approach these goals

— Resulted in spacecraft changes to improve

— Lifetime

— Improved batteries

— Improved cooling

— Improved reaction wheel assembly

— Performance

— Changed focal plane to 6000 cell design

— Three times more cells than original design

— Three times the data

b1

— Changed on board data processor

— Handle the higher data output from the focal plane

— Be more tolerant to hardware faults

[redacted]:

— Two satellites (5 and 6) are being retrofitted to [redacted] design

— Will be delivered by June 1988

— Satellite 14 and subsequent satellites being designed for [redacted]

— Satellite 14 will be delivered by b1

— Satellites 10, 12, 13 last of current design

b1

— All other satellites have been launched

b1

— February 91

— Satellites 12 and 13 may be launched by 92

— The LPS upgrade must be completed by 94

— Must be able to interface with the [redacted] satellites

[redacted]:

— IBM/AFSC must be aware of concerns on the potential operational impacts

— Need the ground station upgrade completed on schedule

— Must be able to support the [redacted] satellite data when required

— We cannot afford to have a time overrun on the schedule

ACTION OFFICER: [redacted] DATE: [redacted]

AUTHENTICATION: ORIGINAL SIGNED
WILLIAM E. LINDEMAN, Brig Gen, USAF
DCS/Plans, Policy, Programs
and Requirements

8 DEC 1988